# COMMONWEALTH OF VIRGINIA Department of Environmental Quality South Central Regional Office

# STATEMENT OF LEGAL AND FACTUAL BASIS

Huber Engineered Woods, LLC Chaney Lane - Route 3, Highway 626, Halifax County, Virginia Permit No. SCRO30905

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Huber Engineered Woods, LLC has applied for a Title V Operating Permit for its Halifax County facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:	Date:		
Air Permit Manager:	Date:		
Regional Director:	Date:		

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### **FACILITY INFORMATION**

### Permittee

Huber Engineered Woods, LLC Highway 626, Route 3 P.O. Box 38 Crystal Hill, VA 24539

### **Facility**

Huber Engineered Woods, LLC Highway 626, Route 3 P.O. Box 38 Crystal Hill, VA 24539

County-Plant Identification Number: 51-083-00050

### SOURCE DESCRIPTION

NAICS Code: NAICS Code: 321219 – The facility manufactures a reconstituted wood product known as oriented strandboard (OSB).

The facility is a Title V major source of Particulate Matter (PM10), Nitrogen Dioxides (NOx), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC). This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility was previously permitted under a Minor New Source Review (NSR) Permit issued on 10/16/07, and amended 3/6/08.

### **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

# EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units, pollution control devices, and stacks are those units described in the table in Section II of this Title V permit.

### **EMISSIONS INVENTORY**

Emissions are summarized in the following table.

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### 2006 Actual Emissions

	Criteria Pollutant Emission in Tons/Year					
	VOC	СО	$\mathrm{SO}_2$	$PM_{10}$	$NO_x$	
Total	148.2	118.6	19.4	120.2	118.6	

### EMISSION UNIT APPLICABLE REQUIREMENTS

The following section discusses requirements for the emissions units at Huber. These requirements come from the 10/16/07 permit, as amended 3/6/08, and applicable federal requirements. The conditions are not repeated verbatim from the permit.

# 

### **Wood Yard Limitations**

The limits for the woodyard equipment are from the 10/16/07 permit, as amended 3/6/08, and include the requirement to control PM emissions, a visible emissions limit, and a definition for "wood yard operations."

### **Wood Yard Monitoring**

Periodic visible emissions observations are required for the wood yard operation.

### **Wood Yard Recordkeeping**

Records of visible emissions observations must be kept to demonstrate compliance.

### **Wood Yard Reporting**

The only reporting requirements for the wood yard equipment are the general reporting requirements as shown in Section XVIII C, General Conditions.

### **Wood Yard Testing**

None

# **Section IV** of the Title V permit – Energy System and Dryers (ES&D) **Energy System and Dryers Limitations**

The limits for the ES&D system are from the 10/16/07 permit, as amended 3/6/08, and include specification of air pollution control devices and their operation, approved fuels, allowable fuel throughputs, allowable flake throughput, current NSPS Db standards, visible emissions limits, emissions limits, and general operation, maintenance, and training requirements for the ES&D. The visible emissions limit is set based on the application of Best Available Control Technology (BACT) and the resulting value is less than the NSPS standard. Therefore, the NSPS standard is considered streamlined out of the permit. The limitations subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

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# **Energy System and Dryers Monitoring**

Monitoring for the ES&D is from the 10/16/07 permit, as amended 3/6/08 and consists of measurement and recording of (a) the electrical characteristics for the WESPS, and (b) the temperature, opacity, and CO concentration for the RTOs. The monitoring subsection also includes a cross-reference to MACT requirements as set out in Section XIII of the permit.

CO, VOC, and PM10 emissions from the ES&D system are subject to Compliance Assurance Monitoring (CAM). Three CAM plans for these Pollutant Specific Emissions Units (PSEUs) are attached to the permit and implementation of each of these CAM plans is specified for the ES&D emissions unit. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit

### **Energy System and Dryers Recordkeeping**

Recordkeeping requirements for the ES&D system are from the 10/16/07 permit, as amended 3/6/08; including fuel consumption records, flake throughput records, startup-shutdown-malfunction records, records of the measured electrical characteristics for the WESPs, records of the measured temperatures for the RTOs, COMS records, stack test results, and CO monitored data. The recordkeeping subsection includes a cross-reference to MACT requirements as set out in Section XIII of the permit. There are also CAM recordkeeping requirements in Section XIV of the permit.

# **Energy System and Dryers Reporting**

Reporting subsection cross-references the COM reporting required in the monitoring subsection, and MACT requirements as set out in Section XIII of the permit. There are also CAM reporting requirements in Section XIV of the permit.

### **Energy System and Dryers Testing**

In order to satisfy periodic monitoring requirements, the testing subsection carries forward the onceper-permit term testing of short term emission limits contained in this permit. The testing subsection also includes a cross-reference to MACT requirements as set out in Section XIII of the permit.

# **Section V** of the Title V permit – Backup thermal Oil Heater (GB) **Backup thermal Oil Heater Limitations**

The approved fuels for the GB system are from the 10/16/07 permit, as amended 3/6/08

# **Backup thermal Oil Heater Monitoring**

Periodic visible emissions observations are required for the backup thermal oil heater stack.

### **Backup thermal Oil Heater Recordkeeping**

Recordkeeping requirements for the GB include fuel consumption records from the 10/16/07 permit, as amended 3/6/08, and records of visible emissions observations.

### **Backup thermal Oil Heater Reporting**

The only reporting requirements for the backup thermal oil heater are the general reporting requirements as shown in Section XVIII C, General Conditions.

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# **Backup thermal Oil Heater Testing**

None

# **Section VI** of the Title V permit – Blending and Forming (BF) **Blending and Forming Limitations**

The limits for the BF system are from the 10/16/07 permit, as amended 3/6/08, and include specification of air pollution control devices and their operation, allowable flake throughput, allowable powdered resin throughput, visible emissions limits, emissions limits, and general operation, maintenance, and training requirements for the BF system.

### **Blending and Forming Monitoring**

Monitoring for the BF system is from the 10/16/07 permit, as amended 3/6/08 and consists of measurement of differential pressure across the fabric filter (DC2B).

PM10 emissions from the BF system's fabric filter (DC2B) are subject to Compliance Assurance Monitoring (CAM). A CAM plan for this PSEU is attached to the permit and implementation of the CAM plan is specified for the BF system. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit. (Note: The PM10 plan in this renewal of the Title V permit replaces the PM10 periodic monitoring requirements in the former Title V permit.)

# **Blending and Forming Recordkeeping**

Recordkeeping requirements for the BF system include material throughput records from the 10/16/07 permit, as amended 3/6/08. There are also CAM recordkeeping requirements in Section XIV of the permit.

### **Blending and Forming Reporting**

The reporting requirements for the BF system are the general reporting requirements as shown in Section XVIII C, General Conditions. There are also CAM reporting requirements in Section XIV of the permit.

### **Blending and Forming Testing**

In order to satisfy periodic monitoring requirements for VOC, the testing subsection includes a cross reference to once-per-permit term testing of the facility's fabric filters in order to determine on-going compliance with the short term VOC emission limits contained in this permit.

# **Section VII** of the Title V permit – Press (P)

#### **Press Limitations**

The limits for the Press are from the 10/16/07 permit, as amended 3/6/08, and include specification of air pollution control devices and their operation, allowable flake throughput, visible emissions limits, emissions limits, and general operation, maintenance, and training requirements for the Press. The limitations subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

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### **Press Monitoring**

Monitoring for the Press includes temperature measurement and recording from the 10/16/07 permit, as amended 3/6/08, and periodic visible emissions observations for PM10. The monitoring subsection also includes a cross-reference to MACT requirements as set out in Section XIII of the permit.

VOC emissions from the Press are subject to Compliance Assurance Monitoring (CAM). A CAM plan for this PSEU is attached to the permit and implementation of the CAM plan is specified for the Press. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit

### **Press Recordkeeping**

Recordkeeping requirements for the Press include flake throughput records as required by the 10/16/07 permit, as amended 3/6/08, records of the measured temperatures for the RTO, and records of visible emissions observations. The recordkeeping subsection includes a cross-reference to MACT requirements as set out in Section XIII of the permit. There are also CAM recordkeeping requirements in Section XIV of the permit.

### **Press Reporting**

The reporting subsection also includes a cross-reference to MACT requirements as set out in Section XIII of the permit. There are also CAM reporting requirements in Section XIV of the permit.

### **Press Testing**

The testing subsection includes a cross-reference to MACT requirements as set out in Section XIII of the permit.

# **Section VIII** of the Title V permit – Finish Sawing system (FSS) **Finish Sawing Limitations**

The limits for the Finish Sawing system are from the 10/16/07 permit, as amended 3/6/08, and include specification of air pollution control devices and their operation, a visible emissions limit, emissions limits, and general operation, maintenance, and training requirements for the FSS.

# **Finish Sawing Monitoring**

Monitoring for the FSS is from the 10/16/07 permit, as amended 3/6/08 and consists of measurement of differential pressure across the fabric filter (DC3C).

PM10 emissions from the FSS fabric filter (DC3C) are subject to Compliance Assurance Monitoring (CAM). A CAM plan for this PSEU is attached to the permit and implementation of the CAM plan is specified for the FSS system. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit. (Note: The PM10 plan in this renewal of the Title V permit replaces the PM10 periodic monitoring requirements in the former Title V permit.)

### Finish Sawing Recordkeeping

The recordkeeping requirement for the FSS is the general requirement to maintain all emission data. There are also CAM recordkeeping requirements in Section XIV of the permit.

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# **Finish Sawing Reporting**

The reporting requirements for the FSS are the general reporting requirements as shown in Section XVIII C, General Conditions. There are also CAM reporting requirements in Section XIV of the permit.

# **Finish Sawing Testing**

In order to satisfy periodic monitoring requirements for VOC, the testing subsection includes a cross reference to once-per-permit term testing of the facility's fabric filters in order to determine on-going compliance with the short term VOC emission limits contained in this permit.

# **Section IX** of the Title V permit – Unresinated Dust Handling system (DC4C) Unresinated Dust Handling Limitations

The limits for the Unresinated Dust Handling system are from the 10/16/07 permit, as amended 3/6/08, and include specification of air pollution control devices and their operation, a visible emissions limit, emissions limits, and general operation, maintenance, and training requirements for the system.

# **Unresinated Dust Handling Monitoring**

Monitoring for the Unresinated Dust Handling system is from the 10/16/07 permit, as amended 3/6/08 and consists of measurement of differential pressure across the fabric filter (DC4C).

PM10 emissions from the Unresinated Dust Handling system fabric filter (DC4C) are subject to Compliance Assurance Monitoring (CAM). A CAM plan for this PSEU is attached to the permit and implementation of the CAM plan is specified for the FSS system. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit. (Note: The PM10 plan in this renewal of the Title V permit replaces the PM10 periodic monitoring requirements in the former Title V permit.)

### **Unresinated Dust Handling Recordkeeping**

The recordkeeping requirement for the Unresinated Dust Handling system is the general requirement to maintain all emission data. There are also CAM recordkeeping requirements in Section XIV of the permit.

# **Unresinated Dust Handling Reporting**

The reporting requirements for the unresinated dust handling system are the general reporting requirements as shown in Section XVIII C, General Conditions. There are also CAM reporting requirements in Section XIV of the permit.

# **Unresinated Dust Handling Testing**

In order to satisfy periodic monitoring requirements for VOC, the testing subsection includes a cross reference to once-per-permit term testing of the facility's fabric filters in order to determine on-going compliance with the short term VOC emission limits contained in this permit.

# **Section X** of the Title V permit – Six Head Sander (SA2) Six Head Sander Limitations

The limits for the Six Head Sander are from the 10/16/07 permit, as amended 3/6/08, and include \\Cntrl28648\\wwwroot\\$\air\pdf\titlevpermits\30905v SOB\_6.doc

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specification of air pollution control devices and their operation, the allowable throughput of OSB, emissions limits, and visible emissions limits.

### **Six Head Sander Monitoring**

Monitoring for the Six Head Sander consists of measurement of the differential pressure across the fabric filter (DC5) as required by the 10/16/07 permit, as amended 3/6/08, and periodic visible emissions observations for the six head sander material handling, load-out, and storage operations.

PM10 emissions from the Six Head Sander fabric filter (DC5) are subject to Compliance Assurance Monitoring (CAM). A CAM plan for this PSEU is attached to the permit and implementation of the CAM plan is specified for the FSS system. This emission unit specific monitoring subsection also includes a cross-reference to the General CAM Provisions as set out in Section XIV of the permit. (Note: The PM10 plan in this renewal of the Title V permit replaces the PM10 periodic monitoring requirements in the former Title V permit.)

### Six Head Sander Recordkeeping

Recordkeeping requirements for the Six Head Sander include OSB throughput records as required by the 10/16/07 permit, as amended 3/6/08, and records of the visible emissions observations must be kept to demonstrate compliance. There are also CAM recordkeeping requirements in Section XIV of the permit.

### Six Head Sander Reporting

The reporting requirements for the Six Head Sander are the general reporting requirements as shown in Section XVIII C, General Conditions. There are also CAM reporting requirements in Section XIV of the permit.

# Six Head Sander Testing

In order to satisfy periodic monitoring requirements for VOC, the testing subsection includes a cross reference to once-per-permit term testing of the facility's fabric filters in order to determine on-going compliance with the short term VOC emission limits contained in this permit.

# **Section XII** of the Title V permit – Brand Name Logo and Nail Mark Application system (IA) **Brand Name Logo and Nail Mark Application system Limitations**

The limits for the IA system are from the 10/16/07 permit, as amended 3/6/08, and include specification of fugitive VOC controls, and a visible emissions limit. The limitations subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

### Brand Name Logo and Nail Mark Application system Monitoring

The monitoring subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

### Brand Name Logo and Nail Mark Application system Recordkeeping

Recordkeeping requirements for the IA system include material balance records of VOC (in tons) as required by the 10/16/07 permit, as amended 3/6/08. The recordkeeping subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

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# **Brand Name Logo and Nail Mark Application system Reporting**

The reporting subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

# Brand Name Logo and Nail Mark Application system Testing

The testing subsection also includes a cross-reference to MACT limitations as set out in Section XIII of the permit.

# **Section XII** of the Title V permit – Liquid Resin Storage Tanks (T2 (a-g)) Liquid Resin Storage Tanks Limitations

The limits for the Liquid Resin Storage Tanks are from the 10/16/07 permit, as amended 3/6/08, and include the allowable throughput of phenol formaldehyde resin and the allowable throughput of MDI resin.

### **Liquid Resin Storage Tanks Monitoring**

None

### **Liquid Resin Storage Tanks Recordkeeping**

The recordkeeping requirements for the Liquid Resin Storage Tanks are from the 10/16/07 permit, as amended 3/6/08, and include the records of the throughputs of phenol formaldehyde resin and of MDI resin.

# **Liquid Resin Storage Tanks Reporting**

The only reporting requirements for the liquid resin storage tanks are the general reporting requirements as shown in Section XVIII C, General Conditions.

### **Liquid Resin Storage Tanks Testing**

None

### **Tanks** (T1a, T1b, T3, and T4)

Section XII of the former Title V permit, expiration date 5/21/08, addressed the applicable requirements for (2) wax tanks – T1a & T1b, (1) thermal oil tank – T3, and (1) hydraulic oil 68 tank – T4. The only applicable requirements were from NSPS Subpart Kb. As shown in the administrative amendment dated 3/6/08 to the NSR permit dated 10/16/07, none of the four tanks are considered subject to current Subpart Kb requirements. Therefore, the section in the Title V permit addressing the subpart Kb applicable requirements is not included in the current Title V permit.

# **Section** XV of the Title V permit – Facility Wide conditions Facility Wide Limitations

The facility wide limits include the allowable OSB throughput, and a visible emissions limit for fugitive emission points from the 10/16/07 permit, as amended 3/6/08, and a general visible emissions limit for the overall facility.

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### **Facility Wide Monitoring**

None

### **Facility Wide Recordkeeping**

The facility wide recordkeeping includes records of the OSB throughput as required by the 10/16/07 permit, as amended 3/6/08, and records of the hours of operation for listed engines.

### **Facility Wide Reporting**

The only facility wide reporting requirements are the general reporting requirements as shown in Section XVIII C, General Conditions.

# **Facility Wide Testing**

The facility wide testing includes the general testability requirement as required by the 10/16/07 permit, as amended 3/6/08, and once-per-permit term testing of the facility's fabric filters in order to determine on-going compliance with the short term, fabric filter specific VOC emission limits contained in this permit. The initial test in the once-per-permit term series of tests is currently scheduled for 3/10/08.

# Section XIII of the Title V Permit – Plywood and Composite Wood Products (PCWP) MACT

In this section, the PCWP MACT applicable requirements for the facility are parroted from the 40 CFR 63 subpart DDDD as shown as of 10/29/07 (i.e., the date of the most recent PCWP action listed on <a href="http://www.epa.gov/ttn/atw/plypart/plywoodpg.html">http://www.epa.gov/ttn/atw/plypart/plywoodpg.html</a> as of 2/5/08).

### **PCWP – General**

This subsection includes general provisions related to the PCWP MACT including: (a) reference to the Part 63 General Provisions, (b) where terms are defined, and (c) the compliance date. Note, per the 10/29/07 FR notice, the compliance date reverts to 10/1/07 because of the 6/19/07 Court ruling.

### **PCWP Limitations**

This subsection includes compliance options, work practice standards, requirements during periods of startup, shutdown, and malfunctions, how to show initial compliance with each compliance option, when initial compliance demonstrations must be made, and how to show continuous compliance with each compliance option.

### **PCWP Monitoring**

This subsection includes continuous parameter monitoring system installation, operation, and maintenance requirements, and data collection requirements.

# **PCWP Testing**

This subsection includes performance test requirements; including when and how they must be conducted.

# **PCWP Recordkeeping**

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This subsection includes recordkeeping requirements for notifications and reports, startup-shutdown-malfunctions events, and performance tests.

# **PCWP Reporting**

This subsection includes both notification and reporting requirements including (a) reports of failures to meet compliance requirements, (b) general notification requirements, (c) performance test notifications, (d) general reporting requirements, and (e) deviation reporting.

### Section V of the Title V Permit – General CAM Provisions

As mentioned above, PSEU-specific applicable requirements are included with the monitoring requirements for each emissions unit to which CAM is applicable. Section XIV contains those CAM provisions that are universally applicable to PSEUs subject to CAM.

Section XIV requirements include: a listing of the minimum CAM topics to be included in each plan, specifications for the operation of approved monitoring, Quality Improvement Plan (QIP) requirements, reporting and recordkeeping requirements, and definition of appropriate responses to an excursion or exceedance.

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

# **B.** Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-2003".

# F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

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In order for emission units to be relieved from the requirement to make a written report in 14 days the emission units must have continuous monitors meeting the requirements of 9 VAC 5-50-410 or 9 VAC 5-40-41.

# **U.** Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation, see the comments on general condition F.

# STATE ONLY APPLICABLE REQUIREMENTS

None

# FUTURE APPLICABLE REQUIREMENTS

None

### **INAPPLICABLE REQUIREMENTS**

No inapplicable requirements were identified.

#### **COMPLIANCE PLAN**

None at this time.

# **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units are shown in the table contained in Section XVI of the permit. The following equipment has been added to the list of insignificant emissions units with this permit renewal:

- Tanks T3, T4, and 81 through 84 based on the levels of emissions
- Pressure vessels 85 and 86, and
- (2) wax tanks (T1a and T1b) since per the MSDS for their contents, the vapor pressure for the wax is "nil."

#### CONFIDENTIAL INFORMATION

None

#### PUBLIC PARTICIPATION

The draft permit will be placed on public notice in the <u>South Boston Gazette-Virginian</u> from 3/7/08 to 4/7/08.